

form a ring at the larger end, the spots are also intermixed with a few others of pale lavender-grey. The character of the markings is longitudinal in the same way as with all the members of this family. The shell is smooth and fragile with a gloss, still the texture is not at all fine. In shape they are long ovals, compressed suddenly for fully two-thirds of their length, and they are decidedly pointed.

“They measure $\cdot77$ by $\cdot53$ in. and $\cdot72$ by $\cdot53$ in.”

My other eggs agreed well with these, but were more speckled than blotched.

In 1897, Col. Rattray found this bird breeding at Mussoorie and took two nests, the description of which agrees in every detail with those taken by myself:—“The first nest was found in a hole in a rock on the bank of the Aglar River, at an elevation of about 3500 feet. . . . The second nest was found on the 21st June, at Kemptee Falls, at about 4000 feet, and was on a small shelf of rock, under a waterfall.” The eggs would seem also to agree well with mine. Rattray describes them thus: “Large for the size of the bird, long and oval in shape, and a good deal pointed at the small end; colour white with a faint pink tinge, covered with numerous tiny pale red specks, most numerous at the larger end; very little gloss, but fine and satiny to touch. . . . Size, largest egg $\cdot84$ by $\cdot63$ in., smallest egg $\cdot79$ by $\cdot58$ in.; average of six eggs $\cdot82$ by $\cdot61$ in.”

The eggs of my second clutch averaged, rather roughly measured, $\cdot79$ by $\cdot56$ in., so that Rattray’s work out a good deal larger than mine.

XV.—*Notes on Birds observed at Monastir, Turkey in Europe.* By P. J. C. MCGREGOR, British Consul at Sarajevo (late at Monastir).

THE Turkish provinces constituting the territory commonly designated as Macedonia have received but scant attention from ornithologists in recent years, so that the following notes on bird-life at Monastir, based on observations made

from March 1903 to August 1905, may, notwithstanding their meagreness, possess some interest for the readers of 'The Ibis,' and especially for such as may feel tempted to visit those regions.

During the whole of my stay at Monastir the country was in an abnormally disturbed condition, which rendered it difficult—even with an armed escort—to carry out any observations further than an hour's walk from the town, while my official duties seldom afforded me leisure for more than a "constitutional" either in the morning or towards sundown. With the exception, therefore, of two or three visits to the Kara Su marshes and a single ascent of Mount Peristeri, it was impossible to devote serious attention to the marsh-, mountain-, and lake-districts, while, for reasons easy to appreciate, the binocular had usually to do duty for the gun.

The town of Monastir, situated at an elevation of 2027 feet, and midway between the Gulf of Salouika and the Adriatic, occupies the eastern entrance of the natural highway leading from the extensive alluvial plain of Monastir to the lake-district of Okhrid and Southern Albania. Behind it the mountains rise steeply till they culminate in the rugged peak of Peristeri (8304 feet), which stands sentinel over the Lake of Presba, and to the north lies the hill-country of Krushevo and Demir Hissar. The town is divided into two sections by a small stream called the Dragor, which, after hurrying down from its source in a corrie of Peristeri, meanders across the plain amidst a sheltering growth of willows and poplars to lose itself in the sluggish Kara Su (Black Water). Like most Macedonian towns, Monastir presents from a distance the appearance of a large village embowered in greenery, and it is belted with shady avenues, extensive vineyards, and market-gardens, which bear witness to Bulgarian industry, as do the cornfields and pastures spreading fan-like up the mountain-sides, where the stone-built hamlets of Bukovo (2500 feet), Krstovo, Lakhtsé (2400 feet), and Brusnik (2850 feet) nestle among their cherry-orchards and groves of beech or walnut. The fields

are divided by tangled hedges of hawthorn, sloe, elm, and dog-rose densely overgrown with bryony and honeysuckle, while countless streamlets come tumbling down through deep waterworn gullies, some of which, steep and rocky, gape like wounds in the red earth, while others form "dowie dens" of tender leafage for the Nightingale and the Warbler tribe.

The higher slopes south of Monastir are partially covered with a dense scrub of oak and hazel, and at Bukovo, St. Christopher, and other favoured spots the elms and beeches attain considerable dimensions; but the north side of the Okhrid road is repellently barren, and among the lofty mountains encircling the plain we may look in vain for forests of any extent or importance. The plain itself consists mainly of arable land and scanty pasturage, which soon becomes a tawny waste under the summer sun except in the immediate neighbourhood of the Kara Su, where extensive swamps and reed-beds provide admirable cover for marsh-birds and water-fowl.

With regard to the following notes on the birds, I wish to tender my grateful thanks to Herr Othmar Reiser, of the Landesmuseum, Sarajevo, and to Mr. W. Eagle Clarke, of the Royal Scottish Museum, Edinburgh, for their invaluable advice and assistance in compiling them.

1. *TURDUS VISCIVORUS* L. *Mistle-Thrush*.

The Mistle-Thrush was first observed on November 3, 1903, from which date till February 2 I frequently came across flocks of varying dimensions, not only in the kitchen-gardens and elder-brakes, but on the grassy uplands of Smolevo and Bukovo. They were sometimes associated with Redwings and were difficult to approach.

2. *TURDUS MUSICUS* L. *Song-Thrush*.

The only dates on which I observed the Song-Thrush were March 29, 1903, and March 24, 1904.

3. *TURDUS ILIACUS* L. *Redwing*.

On January 24 and February 3, 1904, I saw several flocks in the low meadows.

4. *TURDUS PILARIS* L. *Fieldfare*.

From the second week in January until about the 20th of February, flocks of hundreds frequented the plain and the mountain-pastures. They were very noisy and far from shy.

5. *TURDUS MERULA* L. *Blackbird*.

A common resident above the level of the plain wherever there is cover. The volume of melody poured forth by the Nightingales and Blackbirds in spring surpasses anything I have heard elsewhere.

6. *MONTICOLA SAXATILIS* (L.). *Rock-Thrush*.

Breeds in small numbers in suitable localities near the town. I saw a pair at Lakhtsé on April 15, 1903.

7. *CINCLUS AQUATICUS* (L.). *Dipper*.

A pair or two haunt every mountain-stream. In winter they may be seen on the Dragor, where it traverses the most frequented quarter of the town, and they pair early in April. The specimens obtained seem to approach the variety known as *C. albicollis*.

8. *SAXICOLA ŒNANTHE* (L.). *Wheatear*.

The Wheatear is not seen in numbers till April 10-15, the earliest dates of arrival noted being March 29 in 1903 and March 22 in 1904. The local birds disappear in August, and there is an interval of about three weeks before the northern migrants begin to pass through. None were seen after September 27.

9. *SAXICOLA MELANOLEUCA* (Güld.). *Black-throated Chat*.

On April 20, 1904, I came across a flock in a vineyard and secured several specimens.

10. *SAXICOLA ALBICOLLIS* (Vieill.). *Black-eared Chat*.

Evidently very rare. On April 19, 1904, I shot a male on the outskirts of the town, and on May 27 I saw a pair near Ekshi Su carrying insects in their bills, so I presumed that there was a nest in the neighbourhood.

11. *PRATINCOLA RUBETRA* (L.). *Whinchat*.

The Whinchat is a late arrival as a rule, although on

April 30 of this year I found fledglings. In 1903 I saw the first flock on May 3, and the young were abroad on July 11. I saw none after October 5, but suspect that the local birds had left about mid-September. In 1904 I observed one at Smolevo on April 25, and four days later a large flock of males. The Whinchat is never seen in the plain, but increases in numbers as the higher valleys and pastures are approached.

12. *PRATINCOLA RUBICOLA* (L.). *Stonechat*.

I have noted the Stonechat for every month in the year except December and January; but there is a decided migratory movement in March and October. The breeding-places are generally 200–400 feet above the level of the plain.

13. *RUTICILLA PHENICURUS* (L.). *Redstart*.

The Redstart seems to travel with the Blackcap, and is equally abundant on migration, but I am doubtful whether it ever remains to breed. On February 23, 1904, I was astonished to see a male in full breeding-plumage at Kapsokhori, near Salonika.

14. *RUTICILLA MESOLEUCA* (Hempr. & Ehr.). *White-winged Redstart*.

On April 11, 1904, I saw three or four examples of this form under some large willows in the plain. They were very tame, and afforded every opportunity for identification.

15. *RUTICILLA TITYS* (L.). *Black Redstart*.

I seldom observed the Black Redstart. In 1903, on October 16, I saw a bird of the year, and on the 25th of the same month an adult. In 1904 I observed a single specimen—a male—on the 15th and 16th of March, and on April 2 a large number, principally males, were resting and feeding on a sunny serec near the Resna road, where two days later I found but a couple.

16. *ERITHACUS RUBECULA* (L.). *Redbreast*.

Common in wooded or bushy spots above the level of the plain, to which it only descends in winter. There appears

to be a migratory movement in the first week of April, when considerable numbers may be seen in a limited area.

17. *DAULIAS LUSCINIA* (L.). *Nightingale*.

Arrives regularly about the 12th or 13th of April, and breeds in great numbers, especially in the dense vegetation which fills the lesser gorges. Never seen after August 30. It is in demand as a cage-bird.

18. *SYLVIA CINEREA* Lath. *Whitethroat*.

Arrives about April 23 and breeds in great numbers, showing a preference for the tangled hedges of whitethorn, honeysuckle, and dog-rose, which are also the favourite haunts of the Red-backed Shrike. It disappears in the first week of October.

19. *SYLVIA ATRICAPILLA* (L.). *Blackcap*.

Common on migration in spring and autumn. In 1903 I observed the first specimen, a male, on April 4, and on the 10th, after a heavy fall of rain, there were many in the willows along the Salonika road, all males, so far as I remarked. A certain proportion remain to breed, especially in the villages in cooler situations, but I have also found nests in gardens in the town of Monastir.

20. *REGULUS CRISTATUS* (Koch). *Gold-crested Wren*.

Is found wherever there are fir-trees. On November 4, 1903, I came across a small troop in a bushy gorge below Krstovo, near the level of the plain.

21. *REGULUS IGNICAPILLUS* (Brehm). *Fire-crested Wren*.

On November 12, 1903, I shot one from among a flock of about twenty on the outskirts of the town.

22. *PHYLLOSCOPUS TROCHILUS* (L.). *Willow-Wren*.

The earliest date on which I recorded the arrival of the Willow-Wren is March 30, 1904, but the birds did not appear in numbers till April 15-19, almost invariably after stormy weather accompanied by rain or snow. Until April 25-29 they swarm among the willows and then disappear for the summer. In 1903 they arrived in numbers on August 30. There was a rush on September 13, from

which date until October 4 they were to be seen everywhere, while a last strong contingent arrived on October 13. Isolated specimens were seen until November 11, when the weather was already damp and chilly. In the following year I observed only one spring rush on April 28, and the migration seemed to be on a smaller scale.

23. *PHYLLOSCOPUS SIBILATRIX* (Bechst.). *Wood-Wren*.

I shot one on April 30, 1903, and observed a pair on October 13 of the same year.

24. *PHYLLOSCOPUS RUFUS* (Bechst.). *Chiffchaff*.

Arrives about March 15, but is only occasionally seen till April 10-15. None appear to remain after the end of April, but during the third week in October there is a large southward migration, which lasts till nearly the end of November. Isolated specimens may be seen in sheltered spots in the first week of December.

25. *ACROCEPHALUS STREPERUS* (Vieill.). *Reed-Warbler*.

Abundant in the Kara Su marshes in summer.

26. *ACROCEPHALUS PALUSTRIS* (Bechst.). *Marsh-Warbler*.

Abundant in the cornfields and swampy meadows, at the edge of which it builds its nest among hemlock, nettles, and other rank herbage. In 1903 I first noticed its presence on May 17, and in 1904 on May 29; but in 1905 I discovered a nest with four eggs on May 21. The breeding birds sit very close, and may sometimes be captured with the hand.

27. *ACROCEPHALUS PHRAGMITIS* (Bechst.). *Sedge-Warbler*.

Abundant in summer in the wet pastures on the fringe of the Kara Su swamp.

28. *ACCENTOR MODULARIS* (L.). *Hedge-Sparrow*.

On the 3rd and 14th of November, 1903, I observed a single specimen in the kitchen-gardens. In the following year a Hedge-Sparrow haunted a sheltered spot near the town from the 13th to the 16th of March, and on the latter date I came across another in a different locality.

29. *ACREDULA CAUDATA* (L.). *Long-tailed Tit.*

30. *ACREDULA CAUDATA EUROPEA* (Herm.).

31. *ACREDULA CAUDATA MACEDONICA* Salvad. & Dresser.
Macedonian Long-tailed Tit.

Long-tailed Tits are fairly abundant in the wooded valleys and coppices, descending to the plains in winter. Mr. Othmar Reiser, of the Landesmuseum, Sarajevo, who has kindly examined my small series of specimens, refers them to the varieties enumerated above. I should say that the white-headed type is the least common.

32. *PARUS MAJOR* L. *Great Tit.*

Resident, and the most abundant member of the genus.

33. *PARUS LUGUBRIS* Natt. *Sombre Tit.*

One observed at Bukovo, March 29, 1903.

34. *PARUS CÆRULEUS* L. *Blue Tit.*

Fairly abundant, but much less so than the Great Tit. In winter flights of thirty or forty may be seen in the plain.

35. *ÆGITHALUS PENDULINUS* (L.). *Penduline Tit.*

Seems to arrive about the end of April and nests in small numbers among the willows bordering the lower course of the Dragor and other streams in the plain. The specimens obtained are peculiarly vivid in colour compared with others from the Dobrudja and Southern Russia, the white on the head being very pure and the chestnut on the wing extremely rich. At Monastir, as in Bulgaria, this bird is called by the equivalent of "Water Nightingale."

36. *SITTA CÆSIA* Wolf. *Nuthatch.*

Several pairs haunted the beech-grove at Bukovo. All the specimens which I examined were rather small, but in other respects presented no peculiar characteristics.

37. *CERTHIA FAMILIARIS* L. *Tree-Creeper.*

Fairly common in the wooded meadows near the town from the beginning of November till early in May. I have heard the males singing in mid-April, and presume that they retire

to nest in the mountains. The specimens in my possession have been declared by Herr Reiser to belong to the variety *C. brachydactyla*.

38. TROGLODYTES PARVULUS Koch. *Wren*.

Common and resident, but more numerous in the plain during the winter months.

39. MOTACILLA ALBA L. *White Wagtail*.

Not very abundant in the low ground except in winter, when it assembles in small troops. It breeds in the mountain valleys, and a certain number appear to pass southwards in the third week of September.

40. MOTACILLA MELANOPE Pall. *Grey Wagtail*.

Appears to keep strictly to the high-lying ground during summer, descending in September to the plain, where, until the first week in February, it may be observed everywhere near running water, even in the centre of the town, where it associates with the Dippers. On February 3, 1904, I surprised eight Grey Wagtails which had apparently found sleeping-quarters in a bunch of dry herbage under the overhanging edge of a ditch.

41. MOTACILLA FLAVA L. *Blue-headed Wagtail*.

I have never seen this bird in the plain except in August and September, when it appears in small flocks; but it seems to breed in the cooler valleys.

42. MOTACILLA MELANOCEPHALA Licht. *Black-headed Wagtail*.

Very abundant in the neighbourhood of the marshes, arriving early in May. A specimen which a friend picked up exhausted on May 9, 1904, made a charming cage-bird.

43. ANTHUS PRATENSIS (L.). *Meadow-Pipit*.

The Meadow-Pipit has come under my notice very seldom, and never in summer. On April 24, 1903, I saw a flock in a ploughed field, and the birds were numerous on September 22 and 25 of the same year, a few being occasionally seen till November 25.

44. *ANTHUS TRIVIALIS* (L.). *Tree-Pipit*.

So far as I am aware, the Tree-Pipit is only to be met with as a migrant in April and May, returning in October.

45. *ANTHUS SPIOLETTA* (L.). *Water-Pipit*.

Very abundant in the rocky gorges of Peristeri in summer, descending in winter to within a short distance of Monastir.

46. *ANTHUS CAMPESTRIS* (L.). *Tawny Pipit*.

Is to be found in the drier and more barren parts of the plain, but does not seem numerous. I only once saw a pair on the higher level of Brusnik—in July, 1904.

47. *ORIOUS GALBULA* L. *Golden Oriole*.

Arrives in mid-April and breeds in considerable numbers, shewing no aversion to the vicinity of human habitations. The autumn migration is at its height about August 27, when many individuals fall victims to local gunners.

48. *LANIUS EXCUBITOR* L. *Great Grey Shrike*.

Observed in the plain on September 27, November 24, and December 13, 1904.

49. *LANIUS MINOR* Gm. *Lesser Grey Shrike*.

Arrives in the first week of May and is fairly abundant everywhere till August. A nestling which I kept for some time assumed the black frontal stripe in December.

50. *LANIUS COLLURIO* L. *Red-backed Shrike*.

One of the most abundant, conspicuous, and widely distributed summer visitors, arriving between the 20th and 24th of April. It seems to nest by preference in the tangled hedges and thickets dear to the Whitethroat, but is also seen in numbers in the mountain-gorges 1000 feet above Monastir. I have never found anything but insects in the stomach.

51. *LANIUS POMARINUS* Sparrm. *Woodchat*.

The only specimen which I ever saw was a handsome male observed on April 26, 1904, when I had unfortunately left my gun behind me.

52. MUSCICAPA GRISOLA L. *Spotted Flycatcher.*

This species does not seem to remain to nest and is much more conspicuous in autumn than in spring. It arrives on the 27th or 28th of April and is seen again about August 27, the southward movement being noticeable in 1903 till as late as November 11; but I observed the greatest numbers about September 27.

53. MUSCICAPA ATRICAPILLA L. *Pied Flycatcher.*

In 1903 I first saw Pied Flycatchers on April 19, after a stormy night. They were accompanied by many of the Collared species and simply swarmed in the pollard willows. On the following day their numbers had increased, and then only a few were seen till the 29th and 30th, when a still greater rush was observed. After that date I saw none, nor did there appear to be an autumn migration. In 1904 the first arrivals were observed on April 4, and the greatest numbers on April 28, from which date I made constant observations till May 7. I have no record of an autumn migration for 1904, but on the 3rd of December, when winter had already set in, I shot an adult male which I preserved.

54. MUSCICAPA COLLARIS Bechst. *Collared Flycatcher.*

Arrives simultaneously with the preceding species, but in smaller numbers. I observed no autumn migration.

55. HIRUNDO RUSTICA L. *Swallow.*

In 1903 the first Swallows appeared on March 29, and early in July the young were being fed on the wing. The local birds disappeared about the end of September and a week later large flights passed through, sometimes getting entangled among the trees after sundown. In 1904 no Swallows were observed till April 10.

56. CHELIDON URBICA (L.). *House-Martin.*

A large colony nests in the barracks, but I noticed few elsewhere. The date of arrival was April 19-20, and that of departure about September 8, after which there was a considerable migration from the north until September 29.

57. *COTILE RUPESTRIS* (Scop.). *Cliff-Swallow*.

On the 2nd and 4th of April, 1904, I watched half a dozen Cliff-Swallows flitting backwards and forwards along a rocky slope overhanging the Resna road, but I could never ascertain whether they remained to nest.

58. *CARDUELIS ELEGANS* Steph. *Goldfinch*.

Extremely abundant all the year round, forming immense flocks in winter.

59. *CHRYSOMITRIS SPINUS* (L.). *Siskin*.

Only on one occasion—March 23, 1903—did I see a small flight of both sexes sunning themselves in some trees near the town.

60. *SERINUS HORTULANUS* Koch. *Serin*.

On November 23, 1903, I saw six Serins in a garden near the station, and on March, 13, 1904, two or three below Lakhtsé. On the 16th of March, 1905, I noticed a solitary individual at Bukovo.

In connection with this species I may quote the following from my diary of April 19, 1904, for the benefit of future observers:—"Among a flock of Goldfinches feeding in a vineyard I observed a small bird strongly resembling the Serin, but I was struck by its brilliant and pure yellow colour, which became more rich and golden about the head, reminding me of the description of *Serinus syriacus*."

61. *LIGURINUS CHLORIS* (L.). *Greenfinch*.

Apparently not common. On March 24, 1903, I observed a few individuals near St. Christopher, and on April 19 of the following year three in a garden near the railway-station.

62. *COCCOTHRAUSTES VULGARIS* Pall. *Hawfinch*.

On March 29, 1904, I saw three or four examples at Bukovo, and subsequently I received a live bird caught near the town.

63. *PASSER DOMESTICUS* (L.). *House-Sparrow*.

Common and resident, especially in the town, but less numerous than the Tree-Sparrow.

64. *PASSER MONTANUS* (L.). *Tree-Sparrow*.

Common and resident, more abundant in the town than

the preceding species and still more so in the country. Its favourite nesting-place is a somewhat decayed pollard willow. I observed several cases of albinism, and secured one specimen with a white head. *Passer salicicola* is found at various points on the railway between Monastir and Salonika, but I have never seen it in the Monastir plain.

65. FRINGILLA CŒLEBS L. *Chaffinch*.

Fairly common in the woods on the mountain-slopes, particularly in the beech-grove at Bukovo. I have not seen it in the plain except in winter.

66. LINOTA CANNABINA (L.). *Linnet*.

Resident and fairly common. I saw many on the high slopes of Peristeri in June, 1904, and it is abundant on the plain in winter.

67. EMBERIZA MILIARIA L. *Corn-Bunting*.

The commonest of all the Buntings. I doubt whether it ever leaves the district entirely, but in the first week of February it appears in flocks of hundreds and during the summer every bush seems to have its Bunting. The majority disappear in September.

68. EMBERIZA MELANOCEPHALA Scop. *Black-headed Bunting*.

Although this bird is conspicuous and fairly abundant in suitable localities, such as the neighbourhood of sunny vineyards, I have never noticed it till late in May, and I have no notes as to the date of its departure.

69. EMBERIZA CITRINELLA L. *Yellowhammer*.

Resident, but less abundant than the Corn-Bunting, and seldom seen in the plain except in winter, when it associates with flocks of Chaffinches.

70. EMBERIZA CIRLUS L. *Cirl Bunting*.

Twice observed at Smolevo in 1903, six birds among the bushes on December 16, and a few (perhaps the same) on December 25. In 1904 I saw several at the same spot on January 9, April 5, and April 25.

71. *EMBERIZA HORTULANA* L. *Ortolan*.

Arrives between the 15th and 18th of April, and nests in fair numbers in the vineyards. Seems to leave about the first week in August. It is very quarrelsome.

72. *EMBERIZA CIA* L. *Meadow-Bunting*.

Never seen in a meadow. As in Bulgaria, these birds seem to prefer low bushes on dry hill-sides well sheltered from the wind and they are very sluggish. In 1903, on November 8th, I observed two at Smolevo, while others came under my notice on the 15th and 24th of the same month near the town. On February 22, 1904, I saw a pair at St. Christopher.

73. *EMBERIZA SCHENICLUS* (L.). *Reed-Bunting*.

Abundant in the marshes in winter. It seems to have escaped my notice in summer, but is presumably resident.

74. *ALAUDA ARVENSIS* L. *Skylark*.

Fairly common throughout the year.

75. *ALAUDA ARBOREA* L. *Woodlark*.

In 1903 I shot two on November 3, and in April of the two following years I saw a few specimens.

76. *ALAUDA CRISTATA* L. *Crested Lark*.

A common resident, frequenting the roads and open spaces even in the town. On one occasion I heard a House-Sparrow imitate the song of this bird so exactly that a Crested Lark responded and the duet lasted for some time.

77. *STURNUS VULGARIS* L. *Starling*.

Abundant. The Starlings frequent the town exclusively during the nesting season, taking up their quarters there towards the middle of March. As soon as the young are able to fly they are taken to feed on the mulberry-trees, and later on into the water-meadows and kitchen-gardens. The winter is spent in the plain and the marshes, where huge flights may be met with till February.

78. *PYRRHOCORAX ALPINUS* Vieill. *Alpine Chough*.

I observed a small colony among the crags on Peristeri in July, 1904.

79. *GARRULUS GLANDARIUS* (L.). *Jay*.

Fairly common, especially in the oak-woods several hundred feet above the plain, descending to within a short distance of the town in winter, but always frequenting the neighbourhood of oak trees.

80. *PICA RUSTICA* (Scop.). *Maggie*.

A permanent and too common resident, often seen in flocks of sixty or more. Enormous numbers roost in the tall poplars bordering the lower reaches of the Dragor.

81. *CORVUS MONEDULA* Linn. *Jackdaw*.

A permanent and abundant resident in the town, breeding in thousands under the roof-tiles. The Jackdaws assemble regularly every afternoon to manœuvre in the plain, when the uproar is deafening and the sky is literally darkened by their numbers. Partial albinism occasionally occurs.

82. *CORVUS CORNIX* L. *Grey Crow*.

From November to March the Hoodie haunts the plain and the outskirts of the town in great numbers, finding abundance of food near the barracks and slaughter-houses and sharing the Magpies' roosting-quarters in the poplars. A very few remain to breed in the plain, the majority apparently seeking the cooler mountain-gorges for that purpose. They display great animosity towards all Birds-of-Prey, and I have noticed them alight on the topmost branches of a tree and break off twigs which they let fall in order to annoy or drive out a Hawk that had sought refuge among the lower branches. My attention was first drawn to this habit on the occasion of an onslaught by several of these birds on a Goshawk which I was training.

83. *CORVUS CORAX* L. *Raven*.

Except during an excursion to Peristeri, when I saw a pair of Ravens—on the 30th June, 1904,—I observed this bird only seven times: always between the months of September and April.

84. *CORVUS FRUGILEGUS* L. *Rook*.

Common from October till March, when it disappears.

85. *CYPSELUS APUS* (L.). *Swift*.

By no means common as a summer visitor, but observed in some numbers on migration in autumn.

86. *CYPSELUS MELBA* (L.). *Alpine Swift*.

Fairly common, practically taking the place of the Common Swift. It nests in the minarets of the town, and is abundant in the villages, where the only conceivable breeding-places are hollow tree-trunks. The earliest date of observation was April 30, 1904, and I saw a large flight in the mountains on September 21.

87. *CAPRIMULGUS EUROPÆUS* L. *Nightjar*.

Observed regularly during the summer.

88. *DENDROCOPUS LILFORDI* Sharpe & Dresser. *Lilford's Woodpecker*.

The environs of Monastir are not of a nature to attract Woodpeckers, but on October 28, 1903, I was fortunate enough to secure a fine specimen of this species in a wooded meadow close to the town. I have on two subsequent occasions heard what I took to be the call of Lilford's Woodpecker.

89. *GECCINUS VIRIDIS* (L.). *Green Woodpecker*.

On March 22, 1904, while inspecting the ruined village of Ghiavat on the Resna road, I saw a Green Woodpecker among the elms in the churchyard.

90. *ALCEDO ISPIDA* L. *Kingfisher*.

Only twice observed, on both occasions in winter.

91. *CORACIAS GARRULUS* L. *Roller*.

Arrives about the beginning of May and, although not very common, is always to be seen where there are suitable nesting-places.

92. *MEROPS APIASTER* L. *Bee-eater*.

In 1904 a small flock passed over my house on May 9, and on May 15 I saw another flock, mingled with Alpine Swifts, over the parade-ground. In 1905 I saw a few in May.

93. UPUPA EPOPS L. *Hoopoe.*

Common from the end of March till September, nesting principally in mud walls. The native name is "Putput." I have seen a Hoopoe attack a Stork which had approached its nesting-place.

94. CUCULUS CANORUS L. *Cuckoo.*

Arrives between the 8th and 15th of April and is widely distributed. Many birds of the year were on passage on August 28, 1903.

95. CARINE NOCTUA (Scop.). *Little Owl.*

Not very common, but may be observed all the year round.

96. SYRNIUM ALUCO (L.). *Tawny Owl.*

On March 30, 1904, I saw an individual being mobbed by thousands of Jackdaws. The decayed willow from which I dislodged it was surrounded by castings.

97. GYPS FULVUS (Gm.). *Griffon Vulture.*

Fairly common, but I could not ascertain where it breeds.

98. VULTUR MONACHUS L. *Cinereous Vulture.*

I fancy that I identified this Vulture on two or three occasions, but should not like to say so positively.

99. NEOPHRON PERCNOPTERUS (L.). *Egyptian Vulture.*

Very few individuals were observed and these all adults. In June, 1904, I observed a pair high up on Peristeri, where they doubtless breed.

100. GYPAËTUS BARBATUS (L.). *Bearded Vulture.*

On March 16, 1904, I had an opportunity of watching at my leisure a fine adult specimen which was beating over the mountain-slope near the village of Lakhtsé, having presumably wandered from the rugged heights of Peristeri.

101. CIRCUS ÆRUGINOSUS (L.). *Marsh-Harrier.*

Resident, but more frequently seen in winter.

102. CIRCUS CYANEUS (L.). *Hen-Harrier.*

Apparently generally distributed in the neighbourhood from the end of September till the end of March. The latest

date noted of its occurrence in spring was April 3, 1904, when I saw a pair.

103. *BUTEO VULGARIS* Leach. *Common Buzzard*.

The Buzzard is met with all the year round; in fact, it is difficult to spend a couple of hours in the open without seeing one or two individuals, especially in the plain, where several pairs nest in the tall trees. In December, January, and February the numbers seem to increase and four or five pairs may be seen close together.

104. *AQUILA CLANGA* Pall. *Spotted Eagle*.

Not rare. On May 11, 1905, I took two eggs from a nest in a beech tree at Bukovo.

105. *AQUILA HELIACA* Sav. *Imperial Eagle*.

Common and nests in the plain.

106. *AQUILA CHRYSÆTUS* (L.). *Golden Eagle*.

Only once observed.

107. *ASTUR PALUMBARIUS* (L.). *Goshawk*.

Not very common, but nests regularly in suitable localities.

108. *ACCIPITER NISUS* (L.). *Sparrow-Hawk*.

Abundant and resident.

109. *MILVUS ICTINUS* (Savigny). *Common Kite*.

Several pairs nest near the town and I have frequently seen Kites in the mountains; but, as the earliest date on which I have noticed one of these birds was February 13, I conclude that they spend the winter elsewhere.

110. *FALCO AESALON* (Tunst.). *Merlin*.

A single individual was observed at Ekshi Su on December 15, 1903.

111. *FALCO SUBBUTEO* L. *Hobby*.

I noticed a Hobby on the 24th of April, 1904, but the majority do not appear till May 18-20. They breed in fair numbers, both in the immediate vicinity of the town and in the high valleys.

112. *FALCO TINNUNCULUS* L. *Kestrel*.

Common all the year round. Devours quantities of lizards.

113. *FALCO CENCHRIS* Naum. *Lesser Kestrel*.

These Kestrels put in an appearance in the first week of April, and a week later the work of upholstering their nests under the tiled roofs is in full swing. They are a characteristic feature of the town during the summer, and their graceful flight and soft cry combine to render them peculiarly attractive.

114. *PHALACROCORAX PYGMÆUS* (Pall.). *Pygmy Comorant*.

I saw a number in the Kara Su marshes in June, 1903.

115. *PELECANUS CRISPUS* Bruch. *Pelican*.

Common in the Kara Su marshes. The natives use the fat of these birds for dressing wounds.

116. *ARDEA CINEREA* L. *Heron*.

Common all the year round. Near the town there are several large trees which are used for nesting by these birds as well as by Night-Herons.

117. *ARDEA PURPUREA* L. *Purple Heron*.

One or two observed on each visit to the marshes.

118. *ARDEA ALBA* L. *Great Egret*.

Not rare in suitable localities. As I have seen it in June, I presume that it breeds in the district.

119. *NYCTICORAX GRISEUS* (L.). *Night-Heron*.

Common during the summer and autumn.

120. *CICONIA ALBA* (L.). *White Stork*.

In 1903 I saw the first Stork on March 20, and noticed others on the following days, but it was not until the 28th that the regular colony arrived in full numbers and took possession of their nests in poplars, on house-tops, and on chimney-stacks. The natives have a great respect for the Storks, and would resent any attempt to disturb them. During the summer many individuals spend the night perched on haycocks at some distance from the town, and they are given to flying about in the moonlight.

121. CICONIA NIGRA (L.). *Black Stork.*

One individual was observed flying about in the low meadows near the town on the evening of July 30, 1905.

122. PLATALEA LEUCORODIA L. *Spoonbill.*

In summer the Spoonbill may be seen in great numbers near the Kara Su.

123. ANSER (sp. inc.).

I occasionally observed Geese during the winter, but could never identify them.

124. ANAS BOSCAS L. *Mallard.*

Common on marshy ground and in the fields near the town, where I have heard of its nesting in fairly tall willows.

125. QUERQUEDULA CIRCIA (L.). *Garganey.*

Frequently brought to market in winter.

126. NETTION CRECCA (L.). *Teal.*

Numerous in the Kara Su. I cannot vouch for its occurrence in winter.

127. COLUMBA PALUMBUS L. *Ring-Dove.*

Fairly common. It nests in the beech-woods on the mountain-slopes, and eggs are obtainable before the middle of May.

128. COLUMBA ŒNAS L. *Stock-Dove.*

A small colony frequents some precipitous rocks on the Resa road, and flights may be seen in the plain.

129. TURTUR COMMUNIS Selby. *Turtle-Dove.*

Turtle-Doves are first seen about the 19th of April in small flights of five or six, and remain till the end of September, when a considerable migratory movement is observable. They frequent ploughed land in spring, but are usually retiring in their habits.

130. TURTUR DECAOCTO (Frisvaldsky). *Collared Dove.*

A permanent and characteristic resident in the town and its neighbourhood, nesting principally in tall poplars or on window-ledges. The Mussulmans provide boxes and open

baskets to attract the birds to their houses, and they are as familiar as Sparrows. They breed at least twice in the season and prepare for the second brood by building what is practically a fresh nest on the top of the original structure. Troops of these Doves make excursions to the ploughed fields and threshing-floors, and I have found their nests at some distance from the town. The Collared Dove's immunity from molestation cannot be accounted for exclusively by the dryness and insipidity of its flesh, for I have seen a rough Albanian trooper risk life and limb in order to replace a young bird in its nest among the slender branches of a tall acacia.

131. CACCABIS SAXATILIS Wolf & Meyer. *Red-legged Partridge*.

Abundant at some distance from the town.

132. PERDIX CINEREA Lath. *Grey Partridge*.

Resident and breeding in fair numbers, but often decimated by severe winters.

133. COTURNIX COMMUNIS (Bonn.). *Quail*.

A certain number nest in the neighbourhood of the town, but there are no great spring- and autumn-flights, and a bag of a dozen is considered good.

134. RALLUS AQUATICUS L. *Water-Rail*.

A live specimen was brought to me in March, 1904.

135. CREX PRATENSIS Bechst. *Corn-Crake*.

Evidently not common. On the 29th and 30th of April, 1904, I heard the Corn-Crake in some fields near the town.

136. ORTYGOMETRA PORZANA (L.).

On April 25, 1905, a peasant brought me a live specimen, which he declared he had caught in a tree near the town!

137. GALLINULA CHLOROPUS (L.). *Waterhen*.

I saw a few at Kara Su in June, 1903, and on October 6 of the same year a young bird caught in a vineyard near Monastir was brought to me.

138. *FULICA ATRA* L. *Coot.*

Breeds in great numbers in the Kara Su marshes.

139. *GRUS COMMUNIS* Bechst. *Common Crane.*

Immense flights of Cranes pass northwards in spring, my earliest record being March 22. They remain in the marshes for some time, being still numerous in May and June, and their eggs have been described to me by the marshmen. The autumnal migration south is first noticeable about September 27.

140. *VANELLUS VULGARIS* Bechst. *Lapwing.*

Very abundant in the plain from November till February. I imagine that they breed near the Kara Su, but their numbers diminish in summer.

141. *HIMANTOPUS CANDIDUS* Bonnat. *Stilt.*

I have seen the Stilt early in May, and during the summer it abounds in the marshes. I have always observed it flying in pairs and have noticed that the call is a sort of falsetto grunt.

142. *SCOLOPAX RUSTICULA* L. *Woodcock.*

Not common. A few are to be obtained in December and January.

143. *GALLINAGO CÆLESTIS* (Frenzel). *Common Snipe.*

Fairly common from November till March.

144. *TOTANUS OCHROPUS* (L.). *Green Sandpiper.*

A specimen shot in the neighbourhood was given to me on November 24, 1903.

145. *TOTANUS HYPOLEUCUS* (L.). *Common Sandpiper.*

Very rarely seen.

146. *HYDROCHELIDON NIGRA* (L.). *Black Tern.*

Thousands breed in the marshes, where I first noticed them on May 16, 1904.

147. *HYDROCHELIDON LEUCOPTERA* (Schinz). *White-winged Tern.*

Inhabits the same localities as the preceding species, but is less numerous.

148. STERNA (sp. inc.). *Tern.*

I saw many White Terns in the Kara Su marsh, but could not identify them to my satisfaction.

149. LARUS CANUS L. *Common Gull.*

On January 12, 1904, during very cold and stormy weather, a large flock arrived, which remained till February 12, when it disappeared, probably returning to the sea—at least 150 kilometres distant—by easy stages, as on the 28th I saw numbers on the Lake of Ostrovo, halfway between Monastir and Salonika. During their stay the birds haunted the slaughter-houses and kitchen-gardens, winging their way towards the Kara Su marshes at sundown. All were in immature plumage, so far as I could observe.

150. LARUS RIDIBUNDUS L. *Black-headed Gull.*

The flock of Common Gulls referred to above was accompanied by about forty Black-headed Gulls in winter plumage. There must have been about three hundred Gulls in all, and they disappeared at the same time. The natives assured me that the occurrence was not an unusual one in severe winters.

151. PODICIPES CRISTATUS L. *Crested Grebe.*

On May 30, 1904, a Bulgar brought me a live male, which he had picked up in a field close to the town.

152. PODICIPES FLUVIATILIS (Tunst.). *Dabchick.*

On May 16, 1904, I found an egg in the marsh which I feel sure belonged to a bird of this species.

XVI.—*On some Birds collected by Mr. Douglas Carruthers in the Syrian Desert.* By P. L. SCLATER, D.Sc., F.R.S.

(Plate XV.)

MR. DOUGLAS CARRUTHERS, having finished his engagement at the Syrian Protestant College at Beyrout (see 'Ibis,' 1904, p. 310, and 1905, p. 296), arranged with a friend, Mr. J. H. Miller, to make an excursion into the Syrian